Abstract of the Invention

The invention disclosed herein comprises methods of
using microarrays to simplify analysis and
5   characterization of genes and their function.   In one
aspect of the invention the methods are used to identify
and characterize antibodies having binding affinity for a
specific target antigen.   The invention further comprises
a method of determining gene expression at the protein
10   level comprising contacting an array of characterized or
uncharacterized antibodies on a solid surface with one or
more proteins and identifying the antibodies to which
said protein(s) binds.   This method can be additionally
used to compare the protein expression in two different
15   populations of cells, such as normal cells and cancer
cells or resting cells and stimulated cells.   A further
aspect of the invention comprises a method of determining
gene expression at the protein level comprising
contacting a microarray of nucleic acid samples derived
20   from a variety of different sources with one or more
nucleic acid probes then identifying the sample or
samples to which the probe binds.

THIS PAGE BLANK (USPTO)